

Application No. 08/756,257

REMARKS

Claims 22 and 42-47 have been rejected. Claims 1, 7-13, 15, 22, 26, 29 and 31 have been allowed.

The rejection of claims 22 and 42-47 under 35 U.S.C. §103, based on the combination Manwaring et al. and Wilk et al. (WO 93/15648). The Examiner asserts that it would have been obvious to modify Manwaring et al. (US 5,638,819) by moving its graphical object 46 from a computer screen to the tool itself. The motivation for the modification is the mere fact that Wilk et al. discloses an endoscope with a video display 32. According to Wilk et al. the video display receives signals from a CCD 30, to which is coupled fiber optic bundle 22. Applicant can find no mention of what is actually shown on the video display. Presumably, it is the image transmitted by the fiber optic bundle that is shown. The motivation for the combination offered by the Examiner is that the resulting system would be more "compact." No cite is provided to the prior art for this motivation.

According to Section 2144 of the M.P.E.P., "The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line or reasoning based on established scientific principals or legal precedent, that some advantage or expected beneficial result would have been produced by their combination." Neither cited reference appears to be concerned with compactness. The examiner provides no cite to prior art recognition that mere compactness is either beneficial or advantageous. Indeed, it is submitted that placing a computer video display on the end of tool actually makes the tool larger, rather than more compact. Since a computer would still be required for image processing, and that computer would likely have a computer monitor and monitor in order for a human to interface with it and display the endoscopic images to others in the operating room, modifying the system shown in Manwaring et al. in the manner suggested by the examiner would, overall, make it larger. In sum, the examiner's motivation appears to be purely speculative and, in fact, concocted from hindsight. The rejection is in error for this reason.

The problem being solved by applicant's invention is the diversion of the attention of the surgeon away from the patient and tool and toward the monitor. See page 2, line 9-13 of application. The system disclosed by Manwaring et al. plainly suffers from this problem. The

Application No. 08/756,257

mere fact that Wilk et al. show an endoscope with a video display on it neither raise nor suggests an answer to the problem identified by applicant.

Furthermore, with respect to claims 46 and 47, even if the Manwaring et al. system is modified to place its graphical object on a display mounted to a tool, Manwaring et al. do not teach using it to indicate which way the tool should be moved relative to the reference frame of the hand-held surgical tool. The graphical object 46 disclosed by Manwaring et al. functions to indicate the deviation only with respect to the trajectory defined from the initial point of entry of the patient to the target in terms of pitch and yaw. See Col. 8, lines 22-24 ("A trajectory point 54' resides at the intersection between pitch and yaw lines 96 and 98. Trajectory point 54' represents trajectory 54 as viewed looking from initial point 82 toward target 52 (see FIG. 2).") Note also the use of pointer 120, which indicates the degree of role of the tool. Such an indicator is necessitated by the frame of reference employed by the graphical object. All claim limitations must be taught or suggested. See M.P.E.P. 2143.03. The rejection of claims 46 and 47 is therefore in error also for this reason.


Application No. 08/756,257

CONCLUSION

It is respectfully submitted that the rejection of claims 22 and 42-47 is in error for the forgoing reasons. Reconsideration of the application is requested. As it appears the application is otherwise in condition for allowance, such action is respectfully requested.

Should this paper necessitate payment of any fees, please charge them to Deposit Account 13-4900 in the name of Munsch Hardt Kopf & Harr, P.C..

Respectfully submitted,

Date: June 21, 2004

Marc A. Hubbard
Registration No. 32,506

Munsch Hardt Kopf & Harr, P.C.
1445 Ross Avenue, Suite 4000
Dallas, TX 75202
Tel. (214) 855-7571
Customer No. 23559